

highest annual average effluent electrical conductivity) for EC to protect the receiving water from further salinity degradation. Final effluent limitations for salinity based on BPTC will be established subsequent to the collection and analysis by the Discharger of EC in the Discharger's water supply. This Order requires quarterly monitoring of EC and TDS of the Discharger's water supply (see Attachment E, Section IX.B).

This Order also requires the Discharger to implement salinity reduction measures to reduce the salinity in its discharge to the unnamed tributary of Lurline Creek. Special Provision VI.C.3.b of the Order requires the Discharger to prepare and implement a Salinity Evaluation and Minimization Plan for salinity. Implementation measures to reduce salt loading may include source control, mineralization reduction, chemical addition reductions, changing to water supplies with lower salinity, and limiting the salt load from domestic and industrial dischargers. Compliance with these requirements will result in a salinity reduction in the effluent discharged to the receiving water.

- q. **Toxicity.** See Section IV.C.5. of the Fact Sheet regarding whole effluent toxicity.
- r. **Tributyltin.** USEPA developed National Recommended Ambient Water Quality Criteria for protection of freshwater aquatic life for tributyltin. The recommended maximum 1-hour average and 4-day average tributyltin concentrations are 0.46 µg/L and 0.072 µg/L, respectively. Tributyltin was detected at a concentration of 0.294 µg/L in one of four samples. All other samples were non-detect. Tributyltin is normally associated with antifungal agents used in cooling tower and refrigeration water systems, and/or associated with metal coating operations or other metal plating type industries. Although the measured sample was greater than the 4-day average criterion, there are no known industrial dischargers to the Facility that might be a source of the constituent. Section 1.2 of the SIP states that when implementing the provisions of the policy, the Regional Water Board shall use all available, valid, relevant, representative data and information, as determined by the Regional Water Board. The SIP also states that the Regional Water Board shall have discretion to consider if any data are inappropriate or insufficient for use in implementing the policy. Instances where such consideration is warranted include, but are not limited to, the following: evidence that a sample has been erroneously reported or is not representative of the effluent or ambient receiving water quality; questionable quality control/quality assurance practices; and varying seasonal conditions. Given that tributyltin is not expected in the discharge from the Facility, the representation of the detected sample for this discharge is questionable. Therefore, the Regional Water Board has determined there is insufficient information to complete a reasonable potential analysis at this time. Where Regional Board staff have found the data are insufficient to determine reasonable potential, Section 1.3 of the SIP allows the Regional Water Board to implement monitoring for the parameter of concern. Therefore, the Discharger is required to conduct quarterly monitoring for 2 years for tributyltin. If monitoring results indicate that the discharge has the reasonable potential to cause or contribute to

an exceedance of a water quality standard, this Order may be reopened and modified by adding an appropriate effluent limitation.

4. WQBEL Calculations

- a. As discussed in Section IV.C.3 above, effluent limitations for total residual chlorine and pH were based on Basin Plan objectives and applied directly as effluent limitations. Effluent limitations for pathogens (total coliform) were based on DPH's reclamation criteria and the previous Order.
- b. Effluent limitations for ammonia, chlorodibromomethane, cyanide, and dichlorobromomethane were calculated in accordance with section 1.4 of the SIP. The following paragraphs describe the methodology used for calculating effluent limitations.
- c. **Effluent Limitation Calculations.** In calculating maximum effluent limitations, the effluent concentration allowances were set equal to the criteria/standards/objectives.

$$ECA_{acute} = CMC$$

$$ECA_{chronic} = CCC$$

For the human health, agriculture, or other long-term criterion/objective, a dilution credit can be applied. The ECA is calculated as follows:

$$ECA_{HH} = HH + D(HH - B)$$

where:

ECA_{acute} = effluent concentration allowance for acute (one-hour average) toxicity criterion

$ECA_{chronic}$ = effluent concentration allowance for chronic (four-day average) toxicity criterion

ECA_{HH} = effluent concentration allowance for human health, agriculture, or other long-term criterion/objective

CMC = criteria maximum concentration (one-hour average)

CCC = criteria continuous concentration (four-day average, unless otherwise noted)

HH = human health, agriculture, or other long-term criterion/objective

D = dilution credit

B = maximum receiving water concentration

Acute and chronic toxicity ECAs were then converted to equivalent long-term averages (LTA) using statistical multipliers and the lowest is used. Additional

statistical multipliers were then used to calculate the maximum daily effluent limitation (MDEL) and the average monthly effluent limitation (AMEL).

Human health ECAs are set equal to the AMEL and a statistical multiplier is used to calculate the MDEL.

$$\begin{aligned}
 & \text{AMEL} = \text{mult}_{\text{AMEL}} \left[\min \left(\overbrace{M_A ECA_{\text{acute}}, M_C ECA_{\text{chronic}}}^{\text{LTA}_{\text{acute}}} \right) \right] \\
 & \text{MDEL} = \text{mult}_{\text{MDEL}} \left[\min \left(\overbrace{M_A ECA_{\text{acute}}, M_C ECA_{\text{chronic}}}^{\text{LTA}_{\text{chronic}}} \right) \right] \\
 & \text{MDEL}_{\text{HH}} = \left(\frac{\text{mult}_{\text{MDEL}}}{\text{mult}_{\text{AMEL}}} \right) \text{AMEL}_{\text{HH}}
 \end{aligned}$$

where: $\text{mult}_{\text{AMEL}}$ = statistical multiplier converting minimum LTA to AMEL
 $\text{mult}_{\text{MDEL}}$ = statistical multiplier converting minimum LTA to MDEL
 M_A = statistical multiplier converting CMC to LTA
 M_C = statistical multiplier converting CCC to LTA

WQBELs were calculated for ammonia, chlorodibromomethane, cyanide, and dichlorobromomethane as follows in Tables F-7 through F-10, below.

Table F-7. WQBEL Calculations for Ammonia

	Acute	Chronic (30-day)	Chronic (4-day)
pH ⁽¹⁾	8.5	8.5	N/A
Temperature °C ⁽²⁾	N/A	26.9	N/A
Criteria (mg/L) ⁽³⁾	2.14	0.49	1.23
Dilution Credit	No Dilution	No Dilution	No Dilution
ECA	2.14	0.49	1.23
ECA Multiplier	0.23	0.70	0.41
LTA ⁽⁴⁾	0.49	0.34	0.5
AMEL Multiplier (95th%)	⁽⁵⁾	1.82	⁽⁵⁾
AMEL (mg/L)	⁽⁵⁾	0.6	⁽⁵⁾
MDEL Multiplier (99th%)	⁽⁵⁾	4.33	⁽⁵⁾
MDEL (mg/L)	⁽⁵⁾	1.5	⁽⁵⁾

⁽¹⁾ Acute design pH = 8.5 (max. allowed effluent pH), Chronic design pH = 10 (max. effluent pH)

⁽²⁾ Temperature = Maximum 30-day average seasonal effluent temperature

⁽³⁾ USEPA Ambient Water Quality Criteria

⁽⁴⁾ LTA developed based on Acute and Chronic ECA Multipliers calculated at 99th percentile level per sections 5.4.1 and 5.5.4 of TSD.

⁽⁵⁾ Limitations based on chronic (30-day) LTA

Table F-8. WQBEL Calculations for Chlorodibromomethane

	Acute	Chronic
Criteria (mg/L)	N/A	34
Dilution Credit	N/A	No Dilution
ECA	N/A	34
AMEL (mg/L) ⁽¹⁾	N/A	34
MDEL/AMEL Multiplier ⁽²⁾	N/A	2.01
MDEL (mg/L)	N/A	68

⁽¹⁾ AMEL = ECA per section 1.4.B, Step 6 of SIP

⁽²⁾ Assumes sampling frequency n<=4. Uses MDEL/AMEL multiplier from Table 2 of SIP.

Table F-9. WQBEL Calculations for Cyanide

	Acute	Chronic
Criteria (µg/L)	22	5.2
Dilution Credit	No Dilution	No Dilution
ECA	22	5.2
ECA Multiplier	0.32	0.48
LTA	7.1	2.7
AMEL Multiplier (95 th %)	⁽¹⁾	1.55
AMEL (µg/L)	⁽¹⁾	4.3
MDEL Multiplier (99 th %)	⁽¹⁾	3.11
MDEL (µg/L)	⁽¹⁾	8.5

⁽¹⁾ Limitations based on chronic LTA.

Table F-10. WQBEL Calculations for Dichlorobromomethane

	Acute	Chronic
Criteria (mg/L)	N/A	46
Dilution Credit	N/A	No Dilution
ECA	N/A	46
AMEL (mg/L) ⁽¹⁾	N/A	46
MDEL/AMEL Multiplier ⁽²⁾	N/A	2.01
MDEL (mg/L)	N/A	92

⁽¹⁾ AMEL = ECA per section 1.4.B, Step 6 of SIP

⁽²⁾ Assumes sampling frequency n<=4. Uses MDEL/AMEL multiplier from Table 2 of SIP.

Summary of Water Quality-based Effluent Limitations Discharge Point 001

Table F-11. Summary of Water Quality-based Effluent Limitations

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Ammonia Nitrogen, Total (as N)	mg/L	0.6	--	1.5	--	--
Chlorodibromomethane	µg/L	34	--	68	--	--
Cyanide	µg/L	4.3	--	8.5	--	--
Dichlorobromomethane	µg/L	46	--	92	--	--
pH	standard units	--	--	--	6.5	8.5

5. Whole Effluent Toxicity (WET)

For compliance with the Basin Plan's narrative toxicity objective, this Order requires the Discharger to conduct whole effluent toxicity testing for acute and chronic toxicity, as specified in the Monitoring and Reporting Program (Attachment E, Section V.). This Order also contains effluent limitations for acute toxicity and requires the Discharger to implement best management practices to investigate the causes of, and identify corrective actions to reduce or eliminate effluent toxicity.

- a. **Acute Aquatic Toxicity.** The Basin Plan contains a narrative toxicity objective that states, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." (Basin Plan at III-8.00) The Basin Plan also states that, "...effluent limits based upon acute biotoxicity tests of effluents will be prescribed where appropriate...". USEPA Region 9 provided guidance for the development of acute toxicity effluent limitations in the absence of numeric water quality objectives for toxicity in its document titled "Guidance for NPDES Permit Issuance", dated February 1994. In section B.2. "Toxicity Requirements" (pgs. 14-15) it states that, "In the absence of specific numeric water quality objectives for acute and chronic toxicity, the narrative criterion 'no toxics in toxic amounts' applies. Achievement of the narrative criterion, as applied herein, means that ambient waters shall not demonstrate for acute toxicity: 1) less than 90% survival, 50% of the time, based on the monthly median, or 2) less than 70% survival, 10% of the time, based on any monthly median. For chronic toxicity, ambient waters shall not demonstrate a test result of greater than 1 TUc." Accordingly, effluent limitations for acute toxicity have been included in this Order as follows:

Acute Toxicity. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassays ----- 70%
Median for any three or more consecutive bioassays ----- 90%

- b. **Chronic Aquatic Toxicity.** The Basin Plan contains a narrative toxicity objective that states, *"All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life."* (Basin Plan at III-8.00) Chronic WET data from May 2004 through November 2006 indicate that the discharge does not have reasonable potential to cause or contribute to an in-stream excursion above of the Basin Plan's narrative toxicity objective. However, this Order contains effluent limitations for ammonia based on the protection of freshwater aquatic life with which the Discharger is not able to comply. Although chronic WET data does not indicate toxicity in the discharge, the Regional Water Board finds that the discharge exhibits reasonable potential to cause or contribute to an in-stream excursion above the narrative toxicity objective based on the presence of ammonia in the discharge at levels that are toxic to aquatic life. Therefore, a narrative effluent limit is included in this Order that requires that there shall be no chronic toxicity in the effluent discharge.

Numeric chronic WET effluent limitations have been included in this Order. The SIP contains implementation gaps regarding the appropriate form and implementation of chronic toxicity limits. This has resulted in the petitioning of a NPDES permit in the Los Angeles Region² that contained numeric chronic toxicity effluent limitations. To address the petition, the State Water Board adopted WQO 2003-012 directing its staff to revise the toxicity control provisions in the SIP. The State Water Board states the following in WQO 2003-012, *"In reviewing this petition and receiving comments from numerous interested persons on the propriety of including numeric effluent limitations for chronic toxicity in NPDES permits for publicly-owned treatment works that discharge to inland waters, we have determined that this issue should be considered in a regulatory setting, in order to allow for full public discussion and deliberation. We intend to modify the SIP to specifically address the issue. We anticipate that review will occur within the next year. We therefore decline to make a determination here regarding the propriety of the final numeric effluent limitations for chronic toxicity contained in these permits."* The process to revise the SIP is currently underway. Proposed changes include clarifying the appropriate form of effluent toxicity limits in NPDES permits and general expansion and standardization of toxicity control implementation related to the NPDES permitting process. Since the toxicity control provisions in the SIP are under revision it is infeasible to develop numeric effluent limitations for chronic toxicity. However, the State Water Board found in WQO 2003-012 that, while it is not appropriate to include final numeric effluent limitations for chronic toxicity in NPDES permits for POTWs, permits must contain a narrative effluent limitation, numeric benchmarks for triggering accelerated monitoring, rigorous Toxicity

² In the Matter of the Review of Own Motion of Waste Discharge Requirements Order Nos. R4-2002-0121 [NPDES No. CA0054011] and R4-2002-0123 [NPDES NO. CA0055119] and Time Schedule Order Nos. R4-2002-0122 and R4-2002-0124 for Los Coyotes and Long Beach Wastewater Reclamation Plants Issued by the California Regional Water Quality Control Board, Los Angeles Region SWRCB/OCC FILES A-1496 AND 1496(a).

Reduction Evaluation (TRE)/Toxicity Identification Evaluation (TIE) conditions, and a reopener to establish numeric effluent limitations for either chronic toxicity or the chemical(s) causing toxicity. Therefore, this Order includes a narrative effluent limitation for chronic toxicity and requires that the Discharger meet best management practices for compliance with the Basin Plan's narrative toxicity objective, as allowed under 40 CFR 122.44(k). This Order also includes a reopener that allows the Regional Water Board to reopen the permit and include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE.

Attachment E of this Order requires semi-annual chronic WET monitoring for demonstration of compliance with the narrative toxicity objective and the narrative chronic WET effluent limitation contained in this Order. In addition to WET monitoring, Special Provisions VI.C.2.a. requires the Discharger to submit to the Regional Water Board an Initial Investigative TRE Work Plan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE, in the event effluent toxicity is encountered in the future. The provision also includes a numeric toxicity monitoring trigger and requirements for accelerated monitoring, as well as, requirements for TRE initiation if a pattern of toxicity is demonstrated. The numeric toxicity monitoring trigger is not an effluent limitation; it is the toxicity threshold at which the Discharger is required to perform accelerated chronic toxicity monitoring, as well as the threshold to initiate a TRE if a pattern of effluent toxicity has been demonstrated.

D. Final Effluent Limitations

1. Mass-based Effluent Limitations.

Title 40 CFR 122.45(f)(1) requires effluent limitations be expressed in terms of mass, with some exceptions, and 40 CFR 122.45(f)(2) allows pollutants that are limited in terms of mass to additionally be limited in terms of other units of measurement. This Order includes effluent limitations expressed in terms of mass and concentration. In addition, pursuant to the exceptions to mass limitations provided in 40 CFR 122.45(f)(1), some effluent limitations are not expressed in terms of mass, such as pH and temperature, and when the applicable standards are expressed in terms of concentration (e.g. CTR criteria and MCLs) and mass limitations are not necessary to protect the beneficial uses of the receiving water.

Mass-based effluent limitations were calculated based upon the permitted average daily discharge flow allowed in Section IV.A.1. of the Limitations and Discharge Requirements.

2. Averaging Periods for Effluent Limitations.

Title 40 CFR 122.45 (d) requires average weekly and average monthly discharge limitations for publicly owned treatment works (POTWs) unless impracticable. However, for toxic pollutants and pollutant parameters in water quality permitting, the

US EPA recommends the use of a maximum daily effluent limitation in lieu of average weekly effluent limitations for two reasons. *"First, the basis for the 7-day average for POTWs derives from the secondary treatment requirements. This basis is not related to the need for assuring achievement of water quality standards. Second, a 7-day average, which could comprise up to seven or more daily samples, could average out peak toxic concentrations and therefore the discharge's potential for causing acute toxic effects would be missed."* (TSD, pg. 96) This Order utilizes maximum daily effluent limitations in lieu of average weekly effluent limitations for ammonia, total residual chlorine, chlorodibromomethane, dichlorobromomethane, and cyanide as recommended by the TSD for the achievement of water quality standards and for the protection of the beneficial uses of the receiving stream. Furthermore, for BOD, TSS, pH, and coliform, weekly average effluent limitations have been replaced or supplemented with effluent limitations utilizing shorter averaging periods. The rationale for using shorter averaging periods for these constituents is discussed in Attachment F, Section IV.C.3., above.

3. Satisfaction of Anti-Backsliding Requirements.

The CWA specifies that a revised permit may not include effluent limitations that are less stringent than the previous permit unless a less stringent limitation is justified based on exceptions to the anti-backsliding provisions contained in CWA sections 402(o) or 303(d)(4), or, where applicable, 40 CFR 122.44(l).

Order No. R5-2002-0022 contained effluent limitations for turbidity. The limitations were solely an operational check to ensure the treatment system was functioning properly and could meet the limits for total suspended solids and total coliform organisms. The effluent limitations were not intended to regulate turbidity in the receiving water. Rather, turbidity is an operational parameter to determine proper system functioning and not a WQBEL.

This Order does not include effluent limitations for turbidity. However, the performance-based specification in this Order is an equivalent limitation that is not less stringent, and therefore does not constitute backsliding.

The revision in the turbidity limitation is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16 because this Order imposes equivalent or more stringent requirements than Order No. R5-2002-0210 and therefore does not allow degradation.

Some effluent limitations in this Order are less stringent than those in Order No. R5-2002-0022. As discussed below this relaxation of effluent limitations is consistent with the anti-backsliding requirements of the CWA and federal regulations.

Order No. R5-2002-0022 established effluent limitations for settleable solids. Monitoring data over the term of Order No. R5-2002-0022 indicated that concentrations of settleable solids in the effluent from Discharge Point No. 001 were below the levels of detection for 499 of 500 sampling events. Therefore, the

discharge no longer exhibits reasonable potential to exceed water quality objectives for settleable solids and the effluent limitations are not retained in this Order. The monitoring data submitted by the Facility is considered new information by the Regional Water Board.

The removal of limitations for settleable solids is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Resources Control Board Resolution 68-16. Any impact on existing water quality will be insignificant.

4. Satisfaction of Antidegradation Policy

- a. **Surface Water.** The permitted surface water discharge is consistent with the antidegradation provisions of 40 CFR 131.12 and State Water Board Resolution 68-16. This Order does not allow for an increase in flow or mass of pollutants to the receiving water. Therefore, a complete antidegradation analysis is not necessary. The Order requires compliance with applicable federal technology-based standards and with WQBELs where the discharge could have the reasonable potential to cause or contribute to an exceedance of water quality standards. Compliance with these requirements will result in the use of best practicable treatment or control of the discharge. The impact on existing water quality will be insignificant.
- b. **Groundwater.** The Discharger utilizes aeration and oxidation ponds. Domestic wastewater contains constituents such as TDS, specific conductivity, pathogens, and nitrate. Groundwater data collected from December 2002 to March 2007 do not show a pattern of increasing concentrations of these constituents in the downgradient groundwater. Any increase in the concentration of these constituents in groundwater must be consistent with Resolution 68-16. Any increase in pollutant concentrations in groundwater must be shown to be necessary to allow wastewater utility service necessary to accommodate housing and economic expansion in the area and must be consistent with maximum benefit to the people of the State of California. Some degradation of groundwater by the Discharger is consistent with State Water Board Resolution 68-16 provided that:
 - i. the degradation is limited in extent;
 - ii. the degradation after effective source control, treatment, and control is limited to waste constituents typically encountered in municipal wastewater as specified in the groundwater limitations in this Order;
 - iii. the Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating best practicable treatment and control (BPTC) measures; and
 - iv. the degradation does not result in water quality less than that prescribed in the Basin Plan.

Summary of Final Effluent Limitations Discharge Point 001

Table F-12. Summary of Final Effluent Limitations

Parameter	Units	Effluent Limitations					Basis ²
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	
Average Daily Discharge Flow	mgd	--	--	0.2	--	--	TBEL
Ammonia Nitrogen, Total (as N)	mg/L	0.6	--	1.5	--	--	WQBEL
	lbs/day ¹	0.18	--	0.5	--	--	
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	10	15	20	--	--	TBEL
	lbs/day ¹	17	25	33	--	--	
Chlorodibromomethane	µg/L	34	--	68	--	--	WQBEL
Cyanide	µg/L	4.3	--	8.5	--	--	WQBEL
Dichlorobromomethane	µg/L	46	--	92	--	--	WQBEL
pH	standard Units	--	--	--	6.5	8.5	WQBEL
Total Coliform	MPN/100 mL	--	--	--	--	240	WQBEL
Total Suspended Solids	mg/L	10	15	20	--	--	TBEL
	lbs/day ²	17	25	33	--	--	

¹ Based on a design flow of 0.2 mgd.

² TBEL – Technology-Based Effluent Limitations (See Attachment F, Section IV.B.2)
WQBEL – Water Quality-Based Effluent Limitations (See Attachment F, Section IV.C.3)

- a. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and TSS shall not be less than 85 percent.
- b. **Acute Whole Effluent Toxicity.** Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:
 - i. 70%, minimum for any one bioassay; and
 - ii. 90%, median for any three consecutive bioassays.
- c. **Total Residual Chlorine.** Effluent total residual chlorine shall not exceed:
 - i. 0.011 mg/L, as a 4-day average;
 - ii. 0.019 mg/L, as a 1-hour average;
- d. **Total Coliform Organisms.** Effluent total coliform organisms shall not exceed:

- i. 2.2 most probable number (MPN)/100 mL, as a 7-day median; and
 - ii. 23 MPN/100 mL, more than once in any 30-day period;
- e. **Chronic Whole Effluent Toxicity.** There shall be no chronic whole effluent toxicity in the effluent discharge.

E. Interim Effluent Limitations

1. **Ammonia, cyanide, chlorodibromomethane, and dichlorobromomethane.** The SIP, section 2.2.1, requires that if a compliance schedule is granted for a CTR or NTR constituent, the Regional Water Board shall establish interim requirements and dates for their achievement in the NPDES permit. The interim limitations must be based on current treatment plant performance or existing permit limitations, whichever is more stringent. The State Water Board has held that the SIP may be used as guidance for non-CTR constituents. Therefore, the SIP requirement for interim effluent limitations has been applied to both CTR and non-CTR constituents in this Order.

The interim limitations for ammonia, cyanide, chlorodibromomethane, and dichlorobromomethane in this Order are based on the current treatment plant performance. In developing the interim limitation, where there are ten sampling data points or more, sampling and laboratory variability is accounted for by establishing interim limits that are based on normally distributed data where 99.9% of the data points will lie within 3.3 standard deviations of the mean (*Basic Statistical Methods for Engineers and Scientists, Kennedy and Neville, Harper and Row*). Therefore, the interim limitations in this Order are established as the mean plus 3.3 standard deviations of the available data.

When there are less than ten sampling data points available, the *Technical Support Document for Water Quality- Based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The TSD recognizes that a minimum of ten data points is necessary to conduct a valid statistical analysis. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Therefore, when there are less than ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2).

The Regional Water Board finds that the Discharger can undertake source control and treatment plant measures to maintain compliance with the interim limitations included in this Order. Interim limitations are established when compliance with effluent limitations cannot be achieved by the existing discharge. Discharge of constituents in concentrations in excess of the final effluent limitations, but in compliance with the interim effluent limitations, can significantly degrade water quality and adversely affect the beneficial uses of the receiving stream on a long-

term basis. The interim limitations, however, establish an enforceable ceiling concentration until compliance with the effluent limitation can be achieved.

Table F-12 summarizes the calculations of the interim effluent limitations for ammonia, cyanide, chlorodibromomethane, and dichlorobromomethane:

Table F-13. Interim Effluent Limitation Calculation Summary

Parameter	MEC	Mean	Standard Deviation	Number of Samples	Interim Limitation	
	µg/L				µg/L	lbs/day
Ammonia (mg/L)	12	2.2	1.9	274	8	--
Cyanide	66	--	--	8	205	--
Dichlorobromomethane	73.4	--	--	8	228	--
Chlorodibromomethane	39.7	--	--	8	124	--

F. Land Discharge Specifications

1. The Land Discharge Specifications are necessary to protect the beneficial uses of the groundwater. The specifications included in this Order are carried over from Order No. R5-2002-0022.

G. Reclamation Specifications

Treated wastewater discharged for reclamation is regulated under separate waste discharge requirements and must meet the requirements of California Code of Regulations, Title 22.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

Basin Plan water quality objectives to protect the beneficial uses of surface water and groundwater include numeric objectives and narrative objectives, including objectives for chemical constituents, toxicity, and tastes and odors. The toxicity objective requires that surface water and groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective requires that surface water and groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use or that exceed the maximum contaminant levels (MCLs) in Title 22, CCR. The tastes and odors objective states that surface water and groundwater shall not contain taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan requires the application of the most stringent objective necessary to ensure that surface water and groundwater do not contain chemical constituents, toxic substances, radionuclides, or taste and odor producing substances in concentrations that adversely affect domestic drinking water supply, agricultural supply, or any other beneficial use.

A. Surface Water

1. CWA section 303(a-c), CWA section 303(a-c), requires states to adopt water quality standards, including criteria where they are necessary to protect beneficial uses. The Regional Water Board adopted water quality criteria as water quality objectives in the Basin Plan. The Basin Plan states that "*[t]he numerical and narrative water quality objectives define the least stringent standards that the Regional Water Board will apply to regional waters in order to protect the beneficial uses.*" The Basin Plan includes numeric and narrative water quality objectives for various beneficial uses and water bodies. This Order contains receiving surface water limitations based on the Basin Plan numerical and narrative water quality objectives for bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, sediment, settleable material, suspended material, taste and odors, temperature, toxicity, and turbidity.

B. Groundwater

1. The beneficial uses of the underlying ground water are municipal and domestic supply, industrial service supply, industrial process supply, and agricultural supply.
2. Basin Plan water quality objectives include narrative objectives for chemical constituents, tastes and odors, and toxicity of groundwater. The toxicity objective requires that groundwater be maintained free of toxic substances in concentrations that produce detrimental physiological responses in humans, plants, animals, or aquatic life. The chemical constituent objective states groundwater shall not contain chemical constituents in concentrations that adversely affect any beneficial use. The tastes and odors objective prohibits taste- or odor-producing substances in concentrations that cause nuisance or adversely affect beneficial uses. The Basin Plan also establishes numerical water quality objectives for chemical constituents and radioactivity in groundwaters designated as municipal supply. These include, at a minimum, compliance with MCLs in Title 22 of the CCR. The bacteria objective prohibits coliform organisms at or above 2.2 MPN/100 mL. The Basin Plan requires the application of the most stringent objective necessary to ensure that waters do not contain chemical constituents, toxic substances, radionuclides, taste- or odor-producing substances, or bacteria in concentrations that adversely affect municipal or domestic supply, agricultural supply, industrial supply or some other beneficial use.
3. Groundwater limitations are required to protect the beneficial uses of the underlying groundwater.

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP), Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and state requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for this facility.

A. Influent Monitoring

1. Influent monitoring is required to collect data on the characteristics of the wastewater and to assess compliance with effluent limitations (e.g., BOD and TSS reduction requirements).

B. Effluent Monitoring

1. Pursuant to the requirements of 40 CFR §122.44(i)(2) effluent monitoring is required for all constituents with effluent limitations. Effluent monitoring is necessary to assess compliance with effluent limitations, assess the effectiveness of the treatment process, and to assess the impacts of the discharge on the receiving stream and groundwater.
2. Effluent monitoring of the discharge to the unnamed tributary to Lurline Creek (Discharge Point No. 001) at Monitoring Location EFF-001 has been established as follows:
 - a. Effluent monitoring frequencies and sample types for flow (continuous), total residual chlorine (continuous), turbidity (continuous), total coliform (three times weekly), pH (twice weekly), ammonia (weekly), BOD (5-day @ 20 °C) (weekly), TSS (weekly), settleable solids (weekly), electrical conductivity @ 25 °C (weekly), temperature (weekly), hardness (quarterly), total dissolved solids (quarterly), acute toxicity (semiannually), and priority pollutants (annually) have been retained from Order No. R5-2002-0022 to determine compliance with effluent limitations.
 - b. Monitoring data collected over the term of the previous Order for chloride, chlorodibromomethane, cyanide, and dichlorobromomethane indicate reasonable potential to exceed water quality criteria for these pollutants. Therefore, monthly effluent monitoring for chloride, chlorodibromomethane, cyanide, and dichlorobromomethane has been added to this Order.
 - c. Due to the limited monitoring data available for bis (2-ethylhexyl) phthalate, persistent chlorinated hydrocarbon pesticides, and tributyltin, reasonable potential to exceed water quality criteria cannot be determined. Therefore, effluent limitations for bis (2-ethylhexyl) phthalate, persistent chlorinated

hydrocarbon pesticides, and tributyltin have not been established in this Order. Monthly monitoring has been established for bis (2-ethylhexyl) phthalate, -; quarterly monitoring for 2 years has been established for tributyltin; and annual monitoring has been established for persistent chlorinated hydrocarbon pesticides. A reopener provision is included in this Order should monitoring results indicate that the discharge has the reasonable potential for bis (2-ethylhexyl) phthalate, persistent chlorinated hydrocarbon pesticides, and tributyltin to cause an exceedance of water quality objectives.

C. Whole Effluent Toxicity Testing Requirements

1. **Acute Toxicity.** 2/year 96-hour bioassay testing is required to demonstrate compliance with the effluent limitation for acute toxicity. This Order contains effluent limitations for ammonia based on the protection of freshwater aquatic life with which the Discharger is not able to comply. Therefore, acute toxicity testing may be modified to eliminate ammonia-related toxicity until 18 May 2010, at which time the Discharger shall be required to implement the test without modifications to eliminate ammonia toxicity.
2. **Chronic Toxicity.** 2/year chronic whole effluent toxicity testing is required in order to demonstrate compliance with the Basin Plan's narrative toxicity objective. This Order contains effluent limitations for ammonia based on the protection of freshwater aquatic life with which the Discharger is not able to comply. Therefore, chronic toxicity testing may be modified to eliminate ammonia-related toxicity until 18 May 2010, at which time the Discharger shall be required to implement the test without modifications to eliminate ammonia toxicity.

D. Receiving Water Monitoring

1. Surface Water

- a. Receiving water monitoring is necessary to assess compliance with receiving water limitations and to assess the impacts of the discharge on the receiving stream. Based on a review of monitoring data, the farthest downstream receiving water monitoring location is being removed. Monitoring at this location is unnecessary and imposes an economic burden to the Discharger.
- b. Annual monitoring for priority pollutants is required to collect the necessary data to determine reasonable potential as required in section 1.2 of the SIP. The hardness (as CaCO_3) of the upstream receiving water shall also be monitoring concurrently with the priority pollutants as well as pH to ensure the water quality criteria/objectives are correctly adjusted for the receiving water when determining reasonable potential as specified in section 1.3 of the SIP.

2. Groundwater

- a. Section 13267 of the California Water Code states, in part, "(a) A Regional Water Board, in establishing...waste discharge requirements... may investigate the

quality of any waters of the state within its region" and "(b) (1) In conducting an investigation..., the Regional Water Board may require that any person who... discharges... waste...that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the Regional Water Board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports." The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the Regional Water Board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports. The Monitoring and Reporting Program (Attachment E) is issued pursuant to California Water Code Section 13267. The groundwater monitoring and reporting program required by this Order and the Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. The Discharger is responsible for the discharges of waste at the facility subject to this Order.

- b. Monitoring of the groundwater must be conducted to determine if the discharge has caused an increase in constituent concentrations, when compared to background. The monitoring must, at a minimum, require a complete assessment of groundwater impacts including the vertical and lateral extent of degradation, an assessment of all wastewater-related constituents which may have migrated to groundwater, an analysis of whether additional or different methods of treatment or control of the discharge are necessary to provide best practicable treatment or control to comply with Resolution No. 68-16. Economic analysis is only one of many factors considered in determining best practicable treatment or control. If monitoring indicates that the discharge has incrementally increased constituent concentrations in groundwater above background, this permit may be reopened and modified. Until groundwater monitoring is sufficient, this Order contains Groundwater Limitations that allow groundwater quality to be degraded for certain constituents when compared to background groundwater quality, but not to exceed water quality objectives. If groundwater quality has been degraded by the discharge, the incremental change in pollutant concentration (when compared with background) may not be increased. If groundwater quality has been or may be degraded by the discharge, this Order may be reopened and specific numeric limitations established consistent with Resolution 68-16 and the Basin Plan.
- c. This Order requires the Discharger to continue groundwater monitoring as was required in Order R5-2002-0022, and includes a regular schedule of groundwater monitoring in the attached Monitoring and Reporting Program. The groundwater monitoring reports are necessary to evaluate impacts to waters of the State to assure protection of beneficial uses and compliance with Regional Board plans and policies, including Resolution 68-16. Evidence in the record includes effluent monitoring data that indicates the presence of constituents that may degrade groundwater and surface water.

E. Other Monitoring Requirements

1. Biosolids Monitoring

Biosolids monitoring is required to ensure compliance with the biosolids disposal requirements (Special Provisions VI.C.6.a.). Biosolids disposal requirements are imposed pursuant to 40 CFR 503 to protect public health and prevent groundwater degradation.

2. Water Supply Monitoring

Water supply monitoring is required to evaluate the source of constituents in the wastewater.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in sections 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

- a. **Special Provisions VI.C.1.a.** This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for

surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

- b. **Special Provisions VI.C.1.b.** Conditions that necessitate a major modification of a permit are described in 40 CFR section 122.62, including:
 - i. If new or amended applicable water quality standards are promulgated or approved pursuant to Section 303 of the CWA, or amendments thereto, this permit may be reopened and modified in accordance with the new or amended standards.
 - ii. When new information, that was not available at the time of permit issuance, would have justified different permit conditions at the time of issuance.
- c. **Pollution Prevention (Special Provisions VI.C.1.c.).** This Order requires the Discharger prepare pollution prevention plans following CWC section 13263.3(d)(3) for cyanide, chlorodibromomethane, and dichlorobromomethane. This reopener provision allows the Regional Water Board to reopen this Order for addition and/or modification of effluent limitations and requirements for these constituents based on a review of the pollution prevention plans.
- d. **Whole Effluent Toxicity. (Special Provisions VI.C.1.d.).** This Order requires the Discharger to investigate the causes of, and to identify corrective actions to reduce or eliminate effluent toxicity through a Toxicity Reduction Evaluation (TRE). This Order may be reopened to include a numeric chronic toxicity limitation, a new acute toxicity limitation, and/or a limitation for a specific toxicant identified in the TRE. Additionally, if a numeric chronic toxicity water quality objective is adopted by the State Water Board, this Order may be reopened to include a numeric chronic toxicity limitation based on that objective.
- e. **Water Effects Ratio (WER) and Metal Translators (Special Provisions VI.C.1.e.).** A default WER of 1.0 has been used in this Order for calculating CTR criteria for applicable priority pollutant inorganic constituents. In addition, default dissolved-to-total metal translators have been used to convert water quality objectives from dissolved to total recoverable when developing effluent limitations for inorganic constituents. If the Discharger performs studies to determine site-specific WERs and/or site-specific dissolved-to-total metal translators, this Order may be reopened to modify the effluent limitations for the applicable inorganic constituents.

2. Special Studies and Additional Monitoring Requirements

- a. **Chronic Whole Effluent Toxicity Requirements.** The Basin Plan contains a narrative toxicity objective that states, "All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life." (Basin Plan at III-8.00.) WET data from the previous Order term indicate that the discharge does not have reasonable potential to cause or contribute to an in-stream excursion above of the Basin

Plan's narrative toxicity objective. Attachment E of this Order requires 2/year chronic WET monitoring for demonstration of compliance with the narrative toxicity objective.

In addition to WET monitoring, this provision requires the Discharger to submit to the Regional Water Board an Initial Investigative TRE Work Plan for approval by the Executive Officer, to ensure the Discharger has a plan to immediately move forward with the initial tiers of a TRE, in the event effluent toxicity is encountered in the future. The provision also includes a numeric toxicity monitoring trigger and requirements for accelerated monitoring, as well as, requirements for TRE initiation if a pattern of toxicity is demonstrated.

Monitoring Trigger. A numeric toxicity monitoring trigger of $> 1 \text{ TUc}$ (where $\text{TUc} = 100/\text{NOEC}$) is applied in the provision, because this Order does not allow any dilution for the chronic condition. Therefore, a TRE is triggered when the effluent exhibits a pattern of toxicity at 100% effluent.

Accelerated Monitoring. The provision requires accelerated WET testing when a regular WET test result exceeds the monitoring trigger. The purpose of accelerated monitoring is to determine, in an expedient manner, whether there is a pattern of toxicity before requiring the implementation of a TRE. Due to possible seasonality of the toxicity, the accelerated monitoring should be performed in a timely manner, preferably taking no more than 2 to 3 months to complete.

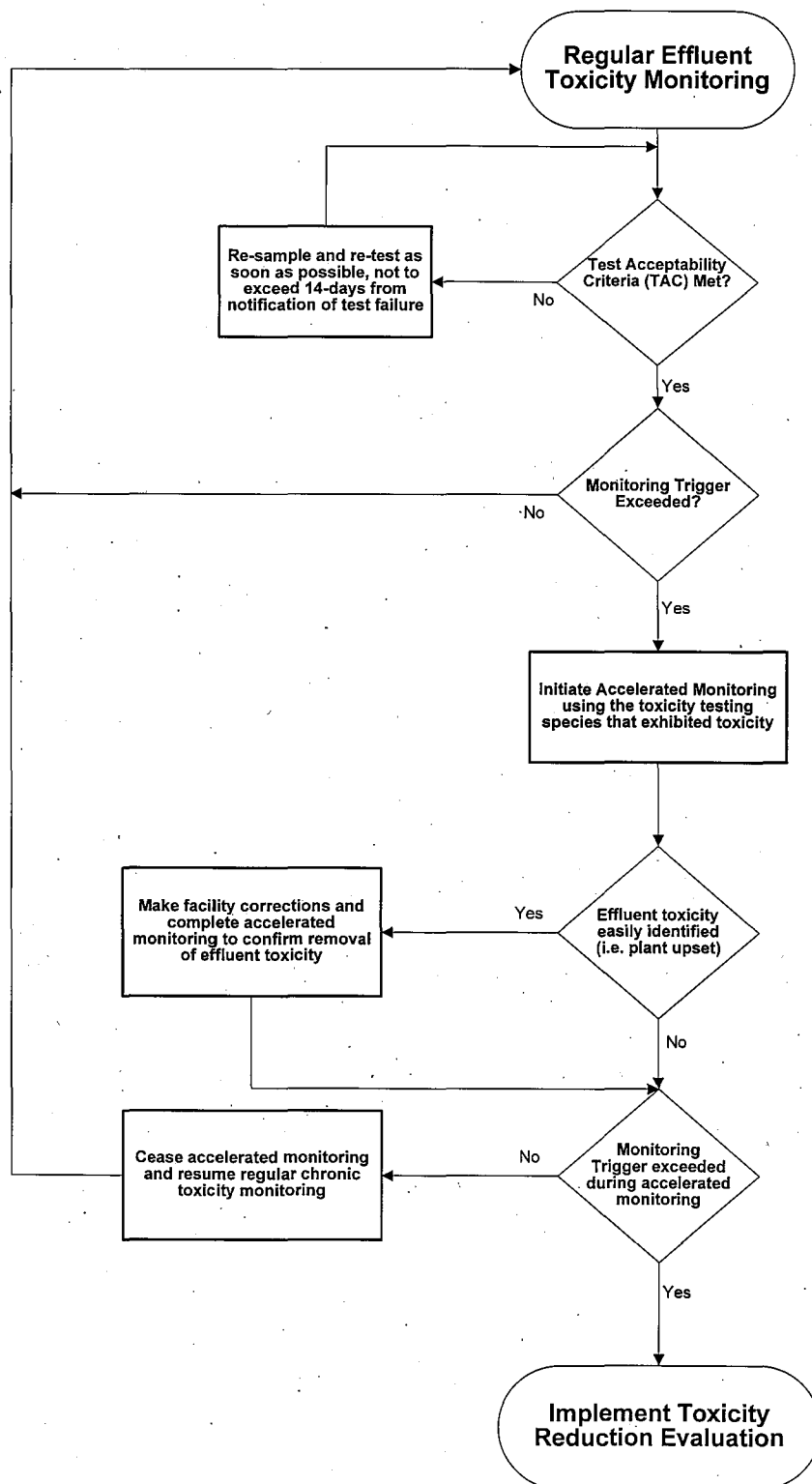
The provision requires accelerated monitoring consisting of four chronic toxicity tests every two weeks using the species that exhibited toxicity. Guidance regarding accelerated monitoring and TRE initiation is provided in the *Technical Support Document for Water Quality-based Toxics Control, EPA/505/2-90-001, March 1991* (TSD). The TSD at page 118 states, "EPA recommends if toxicity is repeatedly or periodically present at levels above effluent limits more than 20 percent of the time, a TRE should be required." Therefore, four accelerated monitoring tests are required in this provision. If no toxicity is demonstrated in the four accelerated tests, then it demonstrates that toxicity is not present at levels above the monitoring trigger more than 20 percent of the time (only 1 of 5 tests are toxic, including the initial test). However, notwithstanding the accelerated monitoring results, if there is adequate evidence of a pattern of effluent toxicity (i.e. toxicity present exceeding the monitoring trigger more than 20 percent of the time), the Executive Officer may require that the Discharger initiate a TRE.

See the WET Accelerated Monitoring Flow Chart (Figure F-1), below, for further clarification of the accelerated monitoring requirements and for the decision points for determining the need for TRE initiation.

TRE Guidance. The Discharger is required to prepare a TRE Work Plan in accordance with USEPA guidance. Numerous guidance documents are available, as identified below:

- *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants*, (EPA/833B-99/002), August 1999.
- Generalized Methodology for Conducting Industrial TREs, (EPA/600/2-88/070), April 1989.
- *Methods for Aquatic Toxicity Identification Evaluations: Phase I Toxicity Characterization Procedures*, Second Edition, EPA 600/6-91/005F, February 1991.
- *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I*, EPA 600/6-91/005F, May 1992.
- *Methods for Aquatic Toxicity Identification Evaluations: Phase II Toxicity Identification Procedures for Samples Exhibiting acute and Chronic Toxicity*, Second Edition, EPA 600/R-92/080, September 1993.
- *Methods for Aquatic Toxicity Identification Evaluations: Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity*, Second Edition, EPA 600/R-92/081, September 1993.
- *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms*, Fifth Edition, EPA-821-R-02-012, October 2002.
- *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, EPA-821-R-02-013, October 2002.
- *Technical Support Document for Water Quality-based Toxics Control*, EPA/505/2-90-001, March 1991

Figure F-1
WET Accelerated Monitoring Flow Chart



- b. **Salinity Study.** The Ayers and Westcot 1985 Study indicates that site-specific factors, such as rainfall and flooding, should be considered in determining protective EC levels in irrigation water. This Order requires the Discharger to conduct a site-specific study that assesses the influence of soil chemistry, climatic conditions, rainfall and flooding, and background water quality on EC/salinity requirements for irrigation waters downstream of the discharge.

In order to meet the requirements of the proposed Order and Time Schedule Order No. R5-2007-0073, which contains time schedules requiring compliance with final effluent limitations by 18 May 2010, the Discharger is proposing to dispose of all the Facility's wastewater via land disposal (subsurface irrigation or other land disposal operations) and cease the discharge to the unnamed tributary to Lurline Creek. Given the planned cessation of the surface water discharge by 18 May 2010, and that site-specific studies would not be completed prior to that date, Regional Water Board staff finds that it is not appropriate to require the Discharger to expend additional resources to conduct a study that will be moot upon its completion. Therefore, the time schedule for completing the study has been established such that the Discharger is required to complete the study only if the surface water discharge has not been discontinued by 18 May 2010. The proposed Order requires submittal of the final study with the Report of Waste Discharge (as required on the Cover Page for the Order) to ensure that the study is available for the next permit renewal.

3. Best Management Practices and Pollution Prevention

- a. **CWC section 13263.3(d)(3) Pollution Prevention Plans.** The pollution prevention plans required for cyanide, dichlorobromomethane, and dichlorobromomethane, shall, at a minimum, meet the requirements outlined in CWC section 13263.3(d)(3). The minimum requirements for the pollution prevention plans include the following:
- i. An estimate of all of the sources of a pollutant contributing, or potentially contributing, to the loadings of a pollutant in the treatment plant influent.
 - ii. An analysis of the methods that could be used to prevent the discharge of the pollutants into the Facility, including application of local limits to industrial or commercial dischargers regarding pollution prevention techniques, public education and outreach, or other innovative and alternative approaches to reduce discharges of the pollutant to the Facility. The analysis also shall identify sources, or potential sources, not within the ability or authority of the Discharger to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides, and estimate the magnitude of those sources, to the extent feasible.
 - iii. An estimate of load reductions that may be attained through the methods identified in subparagraph ii.
 - iv. A plan for monitoring the results of the pollution prevention program.

- v. A description of the tasks, cost, and time required to investigate and implement various elements in the pollution prevention plan.
 - vi. A statement of the Discharger's pollution prevention goals and strategies, including priorities for short-term and long-term action, and a description of the Discharger's intended pollution prevention activities for the immediate future.
 - vii. A description of the Discharger's existing pollution prevention programs.
 - viii. An analysis, to the extent feasible, of any adverse environmental impacts, including cross-media impacts or substitute chemicals that may result from the implementation of the pollution prevention program.
 - ix. An analysis, to the extent feasible, of the costs and benefits that may be incurred to implement the pollution prevention program.
- b. **Salinity Evaluation and Minimization Plan.** In order to control salinity in the Central Valley, the Facility is required to completed a salinity evaluation and minimization plan to address sources of salinity from the Facility.

4. Construction, Operation, and Maintenance Specifications

- a. The treatment pond operating requirements are based on the requirements of 40 CFR 122.41(e) and the previous Order.
- b. **Turbidity.** Operations specifications for turbidity are included as an indicator of the effectiveness of the treatment process and to assure compliance with effluent limitations for total coliform organisms. The tertiary treatment process is capable of reliably meeting a turbidity limitation of 2 nephelometric turbidity units (NTU) as a daily average. Failure of the treatment system such that virus removal is impaired would normally result in increased particles in the effluent, which result in higher effluent turbidity. Turbidity has a major advantage for monitoring filter performance, allowing immediate detection of filter failure and rapid corrective action. The operational specification requires that turbidity shall not exceed 2 NTU as a daily average; 5 NTU, more than 5 percent of the time within a 24-hour period; and an instantaneous maximum of 10 NTU.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Sludge/Biosolids Discharge Specifications.

The sludge/biosolids provisions are required to ensure compliance with State disposal requirements (Title 27, CCR, Division 2, Subdivision 1, section 20005, et seq) and USEPA sludge/biosolids use and disposal requirements at 40 CFR 503.

b. Collection System.

The provision is included to ensure compliance with the requirements in the State Water Board adopted State Water Board Order 2006-0003, a Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

6. Other Special Provisions

- a. **Effective 18 May 2010**, wastewater shall be oxidized, coagulated, filtered, and adequately disinfected pursuant to the DPH's reclamation criteria, California Code of Regulations, Title 22, Division 4, Chapter 3, (Title 22), or equivalent.
- b. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger must obtain approval of, or clearance from, the State Water Resources Control Board (Division of Water Rights).

In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Water Board and a statement. The statement shall comply with the signatory paragraph of Federal Standard Provision V.B.5 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

7. Compliance Schedules

- a. **Title 22 Disinfection Requirements.** The Discharger shall comply with Time Schedule Order No. R5-2007-0073 to ensure compliance with the final requirements and effluent limitations.
- b. **Compliance Schedules for Final Effluent Limitations for Ammonia, Cyanide, Chlorodibromomethane, and Dichlorobromomethane.** The Discharger has not submitted a request, and justification for compliance schedules for ammonia, cyanide, chlorodibromomethane, and dichlorobromomethane. Therefore, this Order requires the Discharger to submit an infeasibility analysis in accordance with Paragraph 3, items (a) through (d), of Section 2.1 of the SIP. This Order establishes compliance schedules for the new, final, water quality-based effluent limitations for ammonia, cyanide, chlorodibromomethane, and dichlorobromomethane and requires full compliance by 18 May 2010. However,

these compliance schedules are contingent on the submittal of acceptable infeasibility analyses by the effective date of this Order.

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Central Valley Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Maxwell Public Utilities District Wastewater Treatment Plant. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the following <Describe Notification Process (e.g., newspaper name and date)>

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Office at the Regional Water Board at the address above on the cover page of this Order.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on 31 December 2008.

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: 5 February 2009
Time: 8:30 am
Location: Regional Water Quality Control Board, Central Valley Region
11020 Sun Center Dr., Suite #200
Rancho Cordova, CA 95670

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our Web address is <http://www.waterboards.ca.gov/rwqcb5/> where you can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Resources Control Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 8:30 a.m. and 4:45 p.m., Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling 916-464-3291.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this order should be directed to Diana C. Messina at 916-464-4828 or dcmessina@waterboards.ca.gov

ATTACHMENT G – REASONABLE POTENTIAL ANALYSIS

I. REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	Antimony, µg/L #1	Arsenic, µg/L #2	Be, µg/L #3	Cadmium, µg/L #4	Cr (III), µg/L # 5a	Cr (VI), µg/L # 5b	Cu, µg/L #6	Lead, µg/L #7	Hg, µg/L #8	Nickel, µg/L #9	Se, µg/L #10	Silver, µg/L #11	Thallium, µg/L #12	Zinc, µg/L #13	Cyanide, µg/L #14	Asb, MFL #15
LEC	ND	1.6	ND	ND	ND	ND	1.5	ND	0.00598	2	1	ND	ND	4.5	ND	ND
MEC	0.3 DNQ	6.1	ND	ND	1.2	4 DNQ	4.4	1.3	0.0121	3.7	3.6	0.3	ND	10	66	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective		Ag WQ Goal 100	Ag WQ Goal 100	Ag WQ Goal 10		Ag WQ Goal 100	Ag WQ Goal 200	Ag WQ Goal 5000		Ag WQ Goal 200	Ag WQ Goal 20			Ag WQ Goal 2000		
CMC Freshwater, Total @ 157 mg/L Hardness (as CaCO ₃)	None est.	340 i,m,w	None est.	7.5	2510	16 i,m,w	21.4	145	None est.	690		8.8	None est.	176	22 o	None Est.
CCC Freshwater, Total @ 157 mg/L Hardness (as CaCO ₃)	None est.	150 i,m,w	None est.	3.5	299	11 i,m,w	13.7	5.7	None est.	76	5 q	None est.	None est.	176	5.2 o	None Est.
Human Health, Total Water + Org.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Organisms Only	4300 a,t	None Est.	n	n	n	n	None Est.	n	0.051 a	4600 a	n	None Est.	6.3 a,t	None Est.	220,000 a,j	None Est.
Other factors (303d listing, bioaccum ...)																
Reasonable Potential	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	N

Notes: Footnotes, abbreviations, and other notations from Final Rule, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, 40 CFR 131, FR/Vol. 65, No. 97, May 18, 2000/Rules and Regulations. **MFL**= Million fibers per Liter, **LEC**= Lowest Effluent concentration; **MEC**= Maximum effluent concentration. (based on last 5 years of data)

Reasonable Potential: (Y) when MEC>most stringent criterion or Max Background concentration >most stringent criterion (and the pollutant is detected in the effluent).

Reasonable Potential: (I) when there is no available/adequate effluent and background data.

Reasonable Potential: (N) when both MEC and Max Background concentration are < most stringent criterion.

Cadmium, Chromium (III), Copper, Lead, Nickel, Silver, Zinc CMC and CCC criteria were based on a minimum effluent hardness of 157 mg/L as CaCO₃. No receiving water hardness available.

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	2, 3, 7, 8-TCDD (Dioxin), µg/L # 16	Acrolein, µg/L # 17	Acrylonitrile, µg/L # 18	Benzene, µg/L # 19	Bromoform, µg/L # 20	Carbon Tetrachloride, µg/L # 21	Chlorobenzene (Monochloro-benzene), µg/L # 22	Chlorodibromo- methane, µg/L # 23	Chloroethane, µg/L # 24	2-Chloro-ethylvinyl Ether, (chloroalkylether), µg/L # 25
LEC	ND	ND	ND	ND	ND	ND	ND	2	ND	ND
MEC	ND	0.8 DNQ	0.5 DNQ	0.07 DNQ	8.4	4	ND	39.7	2.2	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	1.4E-08 c	780 t	0.66 a,c,t	71 a,c	360 a,c	4.4 a,c,t	21,000 a,j,t	34 a,c	None Est.	None Est.
Other factors (303d listing, bioaccum ...)										
Reasonable Potential	N	N	N	N	N	N	N	Y	N	N

Constituent, Unit CTR #	Chloroform, µg/L # 26	Dichlorobromo- methane, µg/L # 27	1,1-Dichloroethane, µg/L # 28	1,2-Dichloro- ethane, µg/L # 29	1,1-Dichloro- ethylene, µg/L # 30	1,2-Dichloro- propane, µg/L # 31	1,3-Dichloro- propylene, µg/L # 32	Ethylbenzene, µg/L # 33	Methyl Bromide (Bromomethane), µg/L # 34	Methyl Chloride (Chloromethane), µg/L # 35
LEC	4.3	4.4	ND	ND	ND	ND	ND	ND	ND	ND
MEC	112	73.4	ND	ND	0.2 DNQ	ND	ND	ND	ND	0.4 DNQ
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	(CTR reserved)USEPA 470	46 a,c	None Est.	99 a,c,t	3.2 a,c,t	39 a	1,700 a,t	29,000 a,t	4,000 a	n
Other factors (303d listing, bioaccum ...)										
Reasonable Potential	N	Y	N	N	N	N	N	N	N	N

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	Methylene Chloride, µg/L # 36	1,1,2,2-Tetra- chloroethane µg/L # 37	Tetrachloro- ethylene, µg/L # 38	Toluene, µg/L # 39	1,2-Trans- Dichloro ethylene, µg/L # 40	1,1,1-Trichloro- ethane, µg/L # 41	1,1,2-Trichloro- ethane, µg/L # 42	Trichloro- ethylene, µg/L # 43	Vinyl Chloride, µg/L # 44	2-Chloro- phenol, µg/L # 45
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	4.4	ND	ND	ND	ND	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only										
Human Health, Total Org Only	1,600 a,c	11 a,c,t	8.85 c,t	200,000 a	140,000 a	n	42 a,c,t	81 c,t	525 c,t	400 a
Other factors (303d listing, bioaccum ...)										
Reasonable Potential	N	N	N	N	N	N	N	N	N	N

Constituent, Unit CTR #	2, 4 Dichlorophenol, µg/L # 46	2,4-Dimethylphenol, µg/L # 47	2-Methyl 4,6-Di- nitrophenol, µg/L # 48	2,4-Dinitrophenol, µg/L # 49	2-Nitrophenol, µg/L # 50	4-Nitrophenol, µg/L # 51	4-chloro-3-methyl phenol, µg/L # 52	Pentachloro- phenol, µg/L # 53	Phenol, µg/L # 54
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	ND	ND	ND	ND	ND	0.9 DNQ
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total At pH=6.5	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	5.3 f,w	None Est.
CCC Freshwater, Total At pH=6.5	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	4 f,w	None Est.
Human Health, Total Water +Org Only									
Human Health, Total Org Only	790 a,t	2,300 a	765 t	14,000 a,t	None Est.	None Est.	None Est.	8.2 a,c,j	4,600,000 a,j,t
Other factors (303d listing, bioaccum ...)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	N	N	N	N	N	N	N	N	N

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	2, 4, 6 Trichloro- phenol, µg /L # 55	Acenaphthene, µg/L # 56	Acenaphthylene, µg/L # 57	Anthracene, µg/L # 58	Benzidine, µg/L # 59	Benzo(a) anthracene, µg/L # 60	Benzo(a) Pyrene, µg/L # 61	Benzo(b) fluoranthene, µg/L # 62	Benzo(ghi) perylene, µg/L # 63
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	0.5 DNQ	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	6.5 a,c	2,700 a	None established	110,000 a	0.00054 a,c,t	0.049 a,c	0.049 a,c	0.049 a,c	None established
Other factors (303d listing, bioaccum ...)									
Reasonable Potential	N	N	N	N	N	N	N	N	N

Constituent, Unit CTR #	Benzo(k) fluoranthene, µg/L # 64	Bis (2-Chloro- ethoxy) Methane, µg/L # 65	Bis (2-Chloroethyl) Ether, µg/L # 66	Bis (2-Chloroiso- propyl) Ether, µg/L # 67	Bis (2-Ethylhexyl) Phthalate, µg/L # 68	4-Bromophenyl Phenyl Ether, µg/L # 69	Butyl benzyl Phthalate, µg/L # 70	2-Chloro- naphthalene, µg/L # 71	4-Chlorophenyl Phenyl Ether, µg/L # 72
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	ND	7	ND	0.2 DNQ	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only									
Human Health, Total Org Only	0.049 a,c	None est	1.4 a,c,t	170,000 a,t	5.9 a,c,t	None est	5,200 a	4,300 a	None Est.
Other factors (303d listing, bioaccum ...)									
Reasonable Potential	N	N	N	N	I	N	N	N	N

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	Chrysene, µg/L # 73	Dibenzo (ah) anthracene, µg/L # 74	1,2 Dichloro- benzene, µg/L # 75	1, 3 Dichloro- benzene, µg/L # 76	1, 4 Dichloro- benzene, µg/L # 77	3,3-Dichloro- benzidine, µg/L # 78	Diethyl Phthalate, µg/L # 79	Dimethyl Phthalate, µg/L # 80	Di-n-Butyl Phthalate, µg/L # 81
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	ND	ND	ND	0.1 DNQ	ND	2 DNQ
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	0.049 a,c	0.049 a,c	17,000 a	2,600	2,600	0.077 a,c,t	120,000 a,t	2,900,000 t	12,000 a,t
Other factors (303d listing, bioaccum ...)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reasonable Potential	N	N	N	N	N	N	N	N	N

Constituent, Unit CTR #	2,4-Dinitrotoluene, µg/L # 82	2,6-Dinitrotoluene, µg/L # 83	Di-n-Octyl Phthalate, µg/L # 84	1,2-Diphenyl- hydrazine, µg/L # 85	Fluoranthene, µg/L # 86	Fluorene, µg/L # 87	Hexachloro- benzene, µg/L # 88	Hexachloro- butadiene, µg/L # 89	Hexachloro- cyclopentadiene, µg/L # 90
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	9.1 c,t	None Est.	None Est.	0.54 a,c,t	370 a	14,000 a	0.00077 a,c	50 a,c,t	17,000 a,j,t
Other factors (303d listing, bioaccum ...)									
Reasonable Potential	N	N	N	N	N	N	N	N	N

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	Hexachloroethane, µg/L # 91	Indeno (1,2,3-cd) pyrene, µg/L # 92	Isophorone, µg/L # 93	Naphthalene, µg/L # 94	Nitrobenzene, µg/L # 95	N-Nitrosodimethyl- amine, µg/L # 96	N-Nitrosodi-n- Propylamine, µg/L # 97	N-Nitrosodiphenyl- amine µg/L # 98
LEC	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	0.06 DNQ	ND	ND	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	8.9 a,c,t	0.049 a,c	600 c,t	None Est.	1,900 a,j,t	8.1 a,c,t	1.4 a	16 a,c,t
Other factors (303d listing, bioaccum ...)								
Reasonable Potential	N	N	N	N	N	N	N	N

Constituent, Unit CTR #	Phenanthrene µg/L # 99	Pyrene, µg/L # 100	1,2,4-Trichlorobenzene, µg/L # 101	Aldrin, µg/L # 102	α-BHC, µg/L # 103	β-BHC, µg/L # 104	γ-BHC (Lindane), µg/L # 105	δ-BHC, µg/L # 106	Chlordane, µg/L # 107	4,4' DDT, µg/L # 108
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	ND	ND	ND	ND	0.053 DNQ	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective				ND, <0.005	ND, <0.01	ND, <0.014	ND, <0.019	ND, <0.005	ND, <0.1	ND, <0.01
CMC Freshwater, Total	None Est.	None Est.	None Est.	3 g	None Est.	None Est.	0.95 w	None Est.	2.4 g	1.1 g
CCC Freshwater, Total	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	None Est.	0.0043 g	0.001 g
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	None established	11,000 a	None established	0.00014 a,c	0.013 a,c	0.046 a,c	0.063 c	None established	0.00059 a,c	0.00059 a,c
Other factors (303d listing, bioaccum ...)				PCHC	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC
Reasonable Potential	N	N	N	N	N	N	N	I	N	N

REASONABLE POTENTIAL ANALYSIS FOR PRIORITY POLLUTANTS

Constituent, Unit CTR #	4, 4'-DDE, µg/L # 109	4,4'-DDD, µg/L # 110	Dieldrin, µg/L # 111	alpha-Endo- sulfan, µg/L # 112	beta-Endo- sulfan, µg/L # 113	Endosulfan Sulfate, µg/L # 114	Endrin, µg/L # 115	Endrin Aldehyde, µg/L # 116	Heptachlor, µg/L # 117	Heptachlor Epoxide, µg/L # 118	PCBs, µg/L # 119-125	Toxaphene, µg/L # 126
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	0.024	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	ND, <0.05	ND, <0.05	ND, <0.01	ND, <0.02	ND, <0.01	ND, <0.05	ND, <0.01	ND, <0.01	ND, <0.01	ND, <0.01	N/A	N/A
CMC Freshwater, Total	None Est.	None Est.	0.24 w	0.22 g	0.22 g	None Est.	0.086 w	None Est.	0.52 g	0.52 g	None Est.	0.73
CCC Freshwater, Total	None Est.	None Est.	0.056 w	0.056 g	0.056 g	None Est.	0.036 w	None Est.	0.0038 g	0.0038 g	0.014u	0.0002
Human Health, Total Water +Org Only	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Human Health, Total Org Only	0.00059 a,c	0.00084 a,c	0.00014 a,c	240 a	240 a	240 a	0.81 a,j	0.81 a,j	0.00021 a,c	0.00011 a,c	0.00017c,v	0.00075a,c
Other factors (303d listing, bioaccum ...)	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC	PCHC		
Reasonable Potential	I	N	N	N	N	N	N	N	N	N	N	N

Notes: Footnotes, abbreviations, and other notations from Final Rule, Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California, 40 CFR 131, FR/Vol. 65, No. 97, May 18, 2000/Rules and Regulations. **MFL**= Million fibers per Liter, **LEC**= Lowest Effluent concentration; **MEC**= Maximum effluent concentration. **(based on last 5 years of data)**

Reasonable Potential: (Y) when MEC>most stringent criterion or Max Background concentration >most stringent criterion (and the pollutant is detected in the effluent).

Reasonable Potential: (I) when there is no available/adequate effluent and background data.

Reasonable Potential: (N) when both MEC and Max Background concentration are < most stringent criterion.

Pentachlorophenol CMC and CCC criteria based on a minimum effluent pH limitation of 6.5.

PCHC= Persistent chlorinated hydrocarbon pesticides

II. REASONABLE POTENTIAL ANALYSIS FOR OTHER POLLUTANTS OF CONCERN

Constituent, Unit	Aluminum, µg/L	Ammonia as N, mg/L	Barium, µg/L	Boron, µg/L	Chloride, mg/L	Electrical Conductivity, µmhos/cm	Fluoride µg/L	Iron, µg/L	Mn, µg/L	Nitrate as N, mg/L	Nitrite as N, mg/L	Sodium, mg/L	Sulfate, mg/L	TDS, mg/L	Tributyltin, µg/L
LEC	8.7	ND	17.8	ND	194	750	ND	ND	14.9	ND	ND	N/A	120	790	ND
MEC	70	12	45	ND	307	4030	1600	100	57	12	0.09	N/A	221	1150	0.294
Average Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	USEPA 87 CCC 750 CMC	USEPA 1.09 CCC 2.14 CMC	N/A	Ag WQ Goal 700	USEPA 230 CCC 860 CMC	Ag WQ Goal 700	Ag WQ Rome Paper 1,000	USEPA 1000 CCC	Ag WQ Goal 200	N/A	N/A	N/A	N/A	Ag WQ Goal 450	USEPA 0.072 CCC 0.46 CMC
Other factors (303d listing, bioaccum ...)					Ag WQ Goal 106			Ag WQ Goal 5000							
Reasonable Potential	N	Y	N	N	Y	Y	I	N	N	N	N	N	N	Y	I

Constituent, Unit	Alachlor, µg/L	Atrazine, µg/L	Bentazon, µg/L	Carbofuran, µg/L	Chlorpyrifos, µg/L	Cis-1,2-dichloro- ethene, µg/L	Dalapon, µg/L	Di(2-ethylhexyl) adipate, µg/L	Diazinon, µg/L	1,2-Dibromo- 3-chloro- propane (DBCP) µg/L	Dinoseb, µg/L	Diquat, µg/L	Endothal, µg/L	Ethylene Dibromide, µg/L
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	ND	ND	ND	2.75 DNQ	ND	ND	4.15 DNQ	0.5 DNQ	ND	0.011	ND	ND	ND	ND
Average Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	USEPA 0.041 CCC 0.083 CMC	N/A	N/A	N/A	USEPA 0.17 CCC 0.17 CMC	N/A	N/A	N/A	N/A	N/A
Other factors (303d listing, bioaccum ...)														
Reasonable Potential	N	N	N	N	N	N	N	N	N	N	N	N	N	N

REASONABLE POTENTIAL ANALYSIS FOR OTHER POLLUTANTS OR CONCERN

Constituent,	Foaming Agents (MBAS), µg/L	Glyphosate, µg/L	Methoxy-chlor, µg/L	Methyl-tert-butyl ether (MTBE), µg/L	Molinate (Ordram), µg/L	Oxamyl, µg/L	Picloram, µg/L	Simazine, µg/L	Styrene, µg/L	Trichloro-fluoro methane, µg/L	1,1,2-Trichloro-1,2,2-Trifluoro-ethane, µg/L	2,4,5-TP (Silvex), µg/L	2,4-D, µg/L	Thiobencarb, µg/L	Xylenes, µg/L
LEC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MEC	430	ND	ND	ND	2.1	ND	ND	ND	0.1 DNQ	ND	ND	ND	ND	ND	ND
Average Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Numeric Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Narrative Basin Plan Objective	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other factors (303d listing, bioaccum ...)															
Reasonable Potential	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Constituent,	Aldicarb Sulfoxide, µg/L	Chlorine, Total Residual µg/L	pH, standard units	Phosphorus, µg/L	Phosphate µg/L	Sulfide µg/L	Sulfite µg/L	OCDD (Dioxin) TEF=0.0001 µg/L					
LEC	ND	ND	6.8	1800	2000	ND	ND	ND					
MEC	350	2200	10	2350	2400	400	2000	0.00000000731 DNQ					
Average Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Maximum Background	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					
Numeric Basin Plan Objective	N/A	N/A	6.5 to 8.5	N/A	N/A	N/A	N/A	N/A					
Narrative Basin Plan Objective	N/A	USEPA 11 CCC 19 CMC	N/A	N/A	N/A	N/A	N/A	N/A					
Other factors (303d listing, bioaccum ...)			Ag WQ Goal 6.5 to 8.4					Human Health, Total Org Only 0.000000014					
Reasonable Potential	N	Y	Y	N	N	N	N	N					

LEC= Lowest Effluent concentration; MEC= Maximum effluent concentration. (based on last 5 years of data)

Reasonable Potential: (Y) when MEC>most stringent criterion or Max Background concentration >most stringent criterion (and the pollutant is detected in the effluent).

Reasonable Potential: (I) when there is no available/adequate effluent and background data.

Reasonable Potential: (N) when both MEC and Max Background concentration are < most stringent criterion.

Ammonia's USEPA criteria based on a maximum effluent pH limitation of 8.5 and a maximum monthly average receiving water temperature of 14.4 °C.